

17343

TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT (Under 37 CFR 1.97(b) or 1.97(c))			Docket No. Q106-US1	
In Re Application Of: Hisashi Tsukamoto et al.				
Serial No. 10/031,022	Filing Date January 14, 2002	Examiner N/A		Group Art Unit 1734
Title: LITHIUM THIN FILM LAMINATION TECHNOLOGY ON ELECTRODE TO INCREASE BATTERY CAPACITY				
Address to: Assistant Commissioner for Patents Washington, D.C. 20231				
37 CFR 1.97(b)				
1. <input checked="" type="checkbox"/> The Information Disclosure Statement submitted herewith is being filed within three months of the filing of a national application other than a continued prosecution application under 37 CFR 1.53(d); within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; before the mailing of a first Office Action on the merits, or before the mailing of a first Office Action after the filing of a request for continued examination under 37 CFR 1.114.				
37 CFR 1.97(c)				
2. <input type="checkbox"/> The Information Disclosure Statement submitted herewith is being filed after the period specified in 37 CFR 1.97(b), provided that the Information Disclosure Statement is filed before the mailing date of a Final Action under 37 CFR 1.113, a Notice of Allowance under 37 CFR 1.311, or an Action that otherwise closes prosecution in the application, and is accompanied by one of:				
<input type="checkbox"/> the statement specified in 37 CFR 1.97(e);				
OR				
<input type="checkbox"/> the fee set forth in 37 CFR 1.17(p).				

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TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT
(Under 37 CFR 1.97(b) or 1.97(c))

Docket No.
Q106-US1

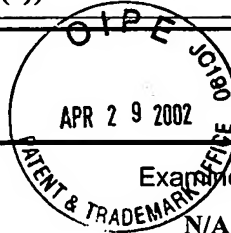
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Examiner
N/A

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LITHIUM THIN FILM LAMINATION TECHNOLOGY ON ELECTRODE TO INCREASE BATTERY CAPACITY

Payment of Fee

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Dated: 4-18-02

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PATENT
Docket No.: Q106-US1

UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Hisashi Tsukamoto et al.

Application No.: 10/031,022

Group Art Unit: 1734

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Title: LITHIUM THIN FILM
LAMINATION TECHNOLOGY
ON ELECTRODE TO INCREASE
BATTERY CAPACITY

Assistant Commissioner for Patents
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

Attached is a completed Form PTO-1449 and copies of the references cited thereon.

Following are comments on any non-English-language references Pursuant to Rule 98:

JP 60-136560 to Sony Ebaredei KK describes a method for preventing reduction of capacity after several cycles in a lithium metal primary battery and improving battery impedance measured after a heat test of several days. Aluminum is deposited on the surface of a separator on the lithium metal electrode side of the separator (negative electrode side). Page 2, paragraph 1, discusses reasons for capacity dropping in a lithium metal battery. Paragraph 6 discusses improvement to impedance.


JP 06-026536 to Sony Corp. points out capacity loss at first charging state of a lithium-ion battery due to an irreversible capacity problem and proposes using a pre-doped negative electrode. However, they do not teach or disclose a method for lithium doping a negative electrode nor using lithium with a polymer film to pre-dope an electrode.

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JP 09-027345 to Ricoh Co. points out the importance of using a pre-doped negative electrode and mentions lithium deposition on a negative surface. They also mention the advantages and disadvantages of several processes, including laminating lithium onto metal foil, coating melted lithium or lithium powder or lithium metal alloy, depositing lithium or lithium metal alloy, and sputtering. They favor a vacuum deposition process. They do not, however, describe the method of the present invention.

Respectfully submitted:

Dated: 4-18-02



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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Kn wn	
				Application Number	10/031,022
				Filing Date	January 14, 2002
				First Named Inventor	Hisashi Tsukamoto et al.
				Art Unit	1734
				Examiner Name	N/A
				Attorney Docket Number	Q106-US1
Sheet	1	of	1		

(use as many sheets as necessary)

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Examiner Name	N/A
Attorney Docket Number	Q106-US1

Sheet 1 of 1

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Date	
Considered	

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**

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